

Remarks

Claims 1-4, 6-10, 13-14 and 17-20 are pending.

The previous claims stand rejected as anticipated or obvious over Ryan, Toida, and Alber. In asserting that Ryan taught the claimed traction ratio, the Examiner has cited to col. 7, lines 3-59 of Ryan. Applicant believes that this citation may have included a typographical error, since Col. 7 of Ryan extends only to line 29, and the text set forth at Col. 7, lines 3-29 of Ryan appears to have little to do with Applicant's claimed traction ratio.

Applicant has also reviewed the remainder of Ryan, and is unsure how the Examiner has reasoned that Ryan teaches Applicant's claimed traction ratio. More specifically, it is unclear which elements of Ryan the Examiner contends correspond to Applicant's "wheel" and "traction means," and how such elements from Ryan meet Applicant's claim limitations requiring that "the arm of the torque divided by a radius of the wheel is larger than 0.57." Should the Examiner maintain the outstanding rejection over Ryan, more specific reasoning from the Examiner as to how Ryan maps to each of the elements/limitations of the claims is respectfully requested.

In an effort to advance the prosecution of this application, and more distinctly claim the invention, Applicant has amended claim 1. As amended, the claim recites a wheel having a rotational axis, and a first radius extending from the rotational axis to an exterior surface of the wheel, wherein the exterior surface of the wheel engages a static, non-rotating surface while the traction assembly is in operation, and an electric motor that directly drives the wheel. The electric motor includes a rotor situated around the rotational axis at a second radius from the rotational axis, and a stator situated around the

rotational axis at a third (different) radius from the rotational axis. A gap¹ is situated around the rotational axis between the rotor and the stator.. While in operation, the electric motor exerts torque that drives the wheel, the torque having an arm extending from the rotational axis to a surface of the gap.² The traction assembly has a traction ratio, defined as the arm of the torque divided by the first radius, which is larger than 0.57.

It is respectfully submitted that the features of amended claim 1 are neither shown nor suggested by the cited references. More particularly, none of the references teach the limitations of the claim in combination, including a traction assembly with a direct drive electric motor that supplies torque that drives the wheel where the distance from the rotational axis to the surface of the gap adjacent to the rotor divided by the first radius of the wheel is larger than 0.57. Ryan does not appear to even show a wheel, and Toida clearly fails to teach either the claimed traction ratio or a direct drive electric motor.

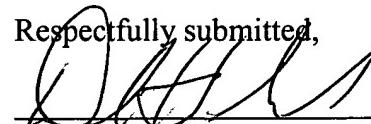
In view of the above, it is submitted that all pending claims are in condition for allowance. A Notice of Allowance is earnestly solicited.

¹ This aspect of the invention is described, for example, at page 17, lines 9-11 of the Specification (“Figure 2 shows a cross-section of a side view of the wheel of Figure 1. The side view shows the air-gap 11 between the permanent magnets 10 and the windings 7.”)

² This aspect of the invention is shown, for example, in the embodiment of Figure 2, where the permanent magnets 10 are included with the rotor 6 (see Specification, page 16, lines 17-19) and the arm of the torque is described as half of the inner diameter of the rotor 6 (see Specification, page 17, lines 1-12.) In the example of Figure 2, the inner surface of the rotor 6 corresponds to the “surface of the gap.”

The Commissioner is hereby authorized to charge any deficiency in the fees due in connection with this filing Deposit Account 50-0310. A duplicate of this authorization is enclosed.

Respectfully submitted,


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Dated: September 16, 2005